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FRANCIS A PAINTIN ESQ
WOODCOCK WASBURN KURTZ
MACKIEWICZ & NORRIS
ONE LIBERTY PLACE-46TH FLOOR
PHILADELPHIA, PA 19103

EXAMINER

MCKENZIE, THOMAS C

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 30

Application Number: 09/450,999

Filing Date: November 29, 1999

Appellant(s): PORTER ET AL.

Jane E. Inglesi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/1/02.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is deficient because the Application concerns β -amidobenzenepropanoic acid compounds, compositions and uses thereof. The compounds are useful for the treatment of arthritis, asthma, and other diseases.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 2-13, 15-17, and 19-22 do stand or fall together.

(8) *ClaimsAppealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

Hawley, Gessner, "The Condensed Chemical Dictionary", 1977, Van Nostrand, New York, page 25.

(10) *Grounds of Rejection*

Upon further consideration, the rejection of the term "heteroaliphatic" is withdrawn. However, the rejection of the three remaining terms is maintained.

The following ground(s) of rejection are applicable to the appealed claims: claims 2-13, 15-17, and 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 16, Applicants repeatedly refer to "cycloaliphatic", "polycycloaliphatic", and "heteropolycycloaliphatic". These are all improper. To quote from Hawley (The Condensed Chemical Dictionary) "aliphatic ... characterized by straight- or

branched-chain arrangement of the constituent carbon atoms." An aliphatic group may be saturated or unsaturated. An aliphatic group may not contain rings or heteroatoms. Thus, the only requirement that an aliphatic molecule must possess is not to contain any rings. Applicants' terms "cycloaliphatic", "polycycloaliphatic", and "heteropolycycloaliphatic" are not recognized in the art of organic chemistry. Thus, we do not know what Applicants intend by these unique terms since the prefixes conflict with the stem word aliphatic. The U.S. Court of Customs and Patent Appeals held *In re Barr, Williams, and Whitmore*, 170 USPQ 330 that "a term used in a claim which distorts the common meaning of the term is not permissible and renders the claim in which the term appears indefinite". The Examiner suggests "alicyclic" and "heterocyclic" if that is what they intend.

There are four problems with Appelants' terms. Firstly, there are conflicting definitions of the term "aliphatic". From footnote 3 *In re CAVALLITO AND GRAY*, 134 USPQ 370, decided by the U.S. Court of Customs and Patent Appeals we learn the following three conflicting definitions:

"aliphatic--Organic compounds whose molecules do not have their carbon atoms arranged in a ring structure. This category therefore includes all the paraffin hydrocarbons and their saturated and unsaturated derivatives of all types. [Emphasis added.] (The Condensed Chemical Dictionary, 6th Ed., p. 38). aliphatic compounds--Aliphatic compounds are organic compounds having an open-chain (noncyclic or acyclic) carbon skeleton. The term "aliphatic" is derived from aleiphatos, the Greek word for fat, which is

the source of many of the aliphatic compounds. Aliphatic compounds include paraffin hydrocarbons, olefins (ethylenic hydrocarbons), and acetylenic hydrocarbons, and their derivatives of all types. [Emphasis added.] (Encyclopedia of Chemical Technology, Vol. 1, Kirk and Othmer, p. 356). aliphatic * * *: Fatty, acyclic--used of a large class of organic compounds characterized by an open-chain structure and consisting of the paraffin, olefin and acetylene hydrocarbons and their derivatives (as the fatty acids); distinguished from alicyclic, aromatic, heterocyclic [Terpenes] [emphasis added.] (Webster's Third New International Dictionary, p. 53)."

The court concluded that "[t]here is no question but the term in question in rejected claims 1 and 35 is such a broad term that it will embrace subject matter not disclosed in the specification. The specification does not disclose any factors governing the selection of the claimed "three lower-aliphatic groups,"

Secondly, the definition given by Webster's Dictionary specifically excluded alicyclic compounds, thus what is one to make of "cycloaliphatic"? Appelants refer to the term in lines 5-9, page 11 of the specification but *In re Barr, Williams, and Whitmore*, 170 USPQ 330 held that such distorted terms are indefinite. Thirdly, Appelants refer to "polycycloaliphatic" in lines 18-20, page 11 again using open language.

Fourthly, "heteropolycycloaliphatic" is described in lines 20-23, page 11 also in open terms. The radical "heteropolycycloaliphatic" is taught as "containing" atoms or groups L^4 , which in turn is any divalent heteroatom-containing group or atom. The L^4 group is defined in lines 9-14, page 10, which in turn refers to L^2 in lines 24-31, page 7. The passages referred to above are silent as

to what Applicants mean by a linking group. However, line 9, page 10 defining "heteroaliphatic" informs us that "heteroatom-containing groups", whatever that means, are also included in L⁴. It occurs to the Examiner that every known functional group in organic chemistry, with the exception of carbon-to-carbon multiple bonds contains a heteroatom. Does "heteropolycycloaliphatic" include an aliphatic radical substituted by a polycyclic heterocycle, e.g. indolyl-methyl? On the other hand, is containing limited to bicycloaliphatic interrupted by a heteroatom, such as quinuclidinyl? A bicycloaliphatic attached through a heteroatom, e.g. decalinylthio?

(11) Response to Argument

Appelants argue that these are art-recognized terms and cite a number of uses of each term found on the Internet, in the chemical literature, and in advertisements. Concerning the use of non-patent literature to establish that disputed phrases were art-recognized, the U.S. Court of Customs and Patent Appeals wrote in footnote 5 of *In re Barr, Williams, and Whitmore*, 170 USPQ 330 that "[w]e do not use the above references as a basis for the taking of judicial notice that the controverted phrases are art-recognized (which would eliminate the need for our reliance on the two patents of record) because we are not sure that this fact is indisputable among reasonable men. McCormick on Evidence, § 324, p. 689 (1954). However, we are of the view that these extra-record references may be used to bolster a weak point which is supported by some evidence in the record

even though we would decline to use them by themselves as a basis for the taking of judicial notice if there were no evidence at all in the record in support of the point. Cf. *In re Boon*, 58 CCPA, 439 F.2d 724, 727-28, 169 USPQ 231, 234 (1971)." See also MPEP §2144.03.

Appelants correctly argue that the requirements of the second paragraph require "clarity and precision" not the most precise language possible. The Examiner has cited conflicting definitions of "aliphatic" above that doom such precision. The Examiner has also asked some specific questions regarding the meaning of the compound terms "heteropolycycloaliphatic" etc. If Applicants cannot answer the questions, then how is the public to understand the metes and bounds of the claims?

Appelants argue that *In re CAVALLITO AND GRAY*, 134 USPQ 370 is not on point because that case was drawn to enablement of broad claims not indefiniteness. However, the Examiner used that case only to establish that others had recognized that conflicting definitions of the term "aliphatic" exist. Appelants also argue that no credible evidence was presented by the Examiner that the disputed words were indefinite. However, both U.S. Court of Customs and Patent Appeals and the Board of Patent Appeals and Interferences have wrestled with the meaning of "aliphatic". In *Ex parte CAVALLITO AND GRAY*, 160 USPQ 509, the Board of Patent Appeals and Interferences upheld an indefiniteness rejection stating "the presently used term "lower alkyl" is certainly a considerable

improvement over the expression "lower-aliphatic" in claim 1 of the prior case." *In re Lund and Godtfredsen*, 153 USPQ 625, "[t]here is no question but that the disputed terms-though they are the same as the terms used in the specification-are so broad that they embrace subject matter not described to be appellants' actual invention by means of adequate representative examples. See also *In re Holmen*, 52 CCPA 1626, 347 F.2d 852, 146 USPQ 290; *In re Cavallito*, 49 CCPA 1335, 306 F.2d 505, 134 USPQ 370. We affirm the rejection of claims 15 and 16 under section 112."

Appelants argue that read in light of the specification, the terms can be understood. However, the points of undefined groups, divalent atoms, open language, and credible alternative meanings not embraced by the specification discussed above only cloud the issue. Finally, can Appelants point to working examples of compounds containing "cycloaliphatic", "polycycloaliphatic", and "hetero polycycloaliphatic" so we may better understand their intended meaning?

Appelants correctly argue that *In re Giolito* 188 USPQ 645, *In re Margaroli*, 138 USPQ 158 (1963); *In re Wright*, and *In re Launder*, 101 USPQ 391, first cited by the Examiner in the Advisory action, are not on point to the present issue but asked if the Examiner believed Appelants were not allowed to ascertain what the skilled organic chemist would understand. The *In re Barr, Williams, and Whitmore*, 170 USPQ 330 citation, presently used, is drawn to the exact question

where extra record evidence is used to bolster an argument concerning indefiniteness.

Of the literature supplied by Appelants, there are three citations for cycloaliphatic. Only two of these indicated the structures to which they pertain and both mean cycloalkane. Yet, Appelants indicated that they also mean cycloalkenes. Aliphatic embraces acetylene compounds and if the ring is large enough, a triple bond is stable in a ring. Yet, Appelants do not appear to mean that.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

Mukund J. Shah
MUKUND J. SHAH
SUPERVISORY PATENT EXAMINER
GROUP 1600

TCMcK
August 9, 2002



Conferees
Mukund Shah

Alan Rotman

Alan L. Rotman
ALAN L. ROTMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

FRANCIS A PAINTIN ESQ
WOODCOCK WASBURN KURTZ
MACKIEWICZ & NORRIS
ONE LIBERTY PLACE-46TH FLOOR
PHILADELPHIA, PA 19103